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EFFECTS OF AGGRESSIVE BEHAVIOR AND PERCEIVED SELF-EFFICACY ON BURNOUT AMONG STAFF OF HOMES FOR THE ELDERLY

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This study elicits effects of experienced aggressive behavior and perceived self-efficacy in coping with aggressive behavior on the dimensions of burnout of staff caring for the elderly (N = 551). From the results of the hierarchical regression analysis it appears that physical and psychological aggression and the number of weekly working hours has an effect on emotional exhaustion of staff. Psychological aggression is found to have an effect on depersonalization. The number of weekly working hours and the perceived self-efficacy in turn appear to have an effect on personal accomplishment. Neither sex nor age has an effect on the burnout dimensions. Implications for research and suggestions for work and training of staff caring for the elderly are discussed.

In the care for the elderly in caregiver facilities young people provide much of the care for old, often very old people. A professional's job in a home is not an easy one (Benjamin, 1991; Hallberg & Norberg, 1995). Consequently, staff exhibit high percentages of absenteeism as well as lack of fitness to continue their jobs (Van Veldhoven & Broersen, 1999). For the greater part, psychological complaints can be held responsible. Staff providing care for the needy and the sick score relatively high

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on being emotionally burdened. Growing numbers of caregivers for the elderly appear to become emotionally exhausted and drained of energy in their daily work. These consequences are rather undesirable for both the persons involved and for the community as a whole. A very negative consequence might be substantive job turnover of the caregivers for the elderly, which threatens the continuity of care in times of a growing population of homes for the elderly because of increasing numbers of old people in our society.

Having provided care for some time, human service workers may get the feeling of becoming exhausted by their work. In psychological literature this phenomenon is called "burnout." Burnout is described as a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do "people work" of some kind (Maslach & Jackson, 1981). Emotional exhaustion refers to feelings of being emotionally overextended, which may result in a negative, cold, and callous treatment of clients (depersonalization), and reduced personal accomplishment. An indication of the latter dimension is a negative evaluation of one's own working performance (Schaufeli, Maslach, & Marek, 1993).

From the very first description of the phenomenon by Freudenberger (1974), burnout has been connected with "human service workers," that is, professionals who work for and with people, for instance staff caring for the elderly (Cherniss, 1980, 1995; Gilbar, 1998; Ogus, 1990; Plante & Bouchard, 1995; Schaufeli, 1990; Williams, 1989). Despite that young people enthusiastically begin their first job in elder care, in the *first year* many of them suffer from burnout symptoms (Cherniss, 1980). In many cases a relation is found between the well-being of staff and the behavior of clients. For instance, the clients' aggressive behavior may negatively affect the staff's well-being to such a degree that burnout symptoms may develop (Cherniss, 1980, 1995; Schaufeli, 1990; Schaufeli, Maslach, & Marek, 1993). The burnout level of staff is related to the intensity or severity of the clients' behavior (Van Dierendonck, Schaufeli, & Sixma, 1994).

Burnout in elder care may, among others, be attributed to two factors. A first factor is the aggressive behavior of the elderly residents. The second factor is the staff's perception of how to cope with aggression. This is referred to as perceived self-efficacy, which is discussed later.

AGGRESSIVE BEHAVIOR

Moving to a home for the elderly does not suddenly turn an aged person into a different person. On the contrary, someone's old habits,

customs, and personal characteristics also move into the new surroundings (Freyne & Wrigley, 1996). McPherson, Eastley, Richards, and Mian (1994) state that just as in any community, different human behaviors occur in homes for the elderly. Until recently, it was not recognized or acknowledged that problems could arise between staff and the resident because of the latter's aggressive behavior. Aggressive behavior of clients in the public health sector is not always reported. For example, in a study on nurses as patient assault victims, Lanza (1992) states that "the incidence of assault is high and vastly underreported" (p. 163). In a study on hospital violence Rosenthal, Edwards, Rosenthal, and Ackerman (1992) conclude that "underreporting of violent events by hospital personnel is a disturbing but frequent reality" (p. 349). When discussing stress among workers caring for the elderly McPherson et al. (1994) suggest that "'stressed' staff tend to over-report, or that 'unstressed' staff tend to under-report aggression" (p. 385). Freyne and Wrigley (1996, p. 62) agree with McPherson et al. (1994) who found that 60–80% of aggressive incidents in homes for the elderly had been underreported. In a study on documentation of aggressive behavior in nursing home residents Beck, Robinson, and Baldwin (1992) conclude that "a major research problem in this area has been poor documentation and underreporting of aggressive episodes by staff" (p. 23), and also that "although 66% of the 1.3 million elderly nursing home residents in the US exhibit aggressive tendencies, research indicates that carers underdocument aggressive incidents. As a result the extent of aggression is unknown" (p. 23). Schneider (1990) investigated the occurrence of aggressive behavior among residents, among staff, and between residents and staff. Findings of this study showed that aggressive behavior was found in each of these groups. Snowdon, Miller, and Vaughan (1996) examined the ways staff looked at aggressive behavior, and found that aggressive behavior is perceived differently by staff. Both Schaufeli (1990) and Freyne and Wrigley (1996) found that staff involved in aggressive behavior of residents often deny the aggressive character of their own behavior. The authors suggest staff regard the existence of aggressive behaviors of the elderly as a failure on their parts.

In general, working with clients having behavioral problems causes feelings of anxiety and depression, absenteeism, and burnout among human service workers (Benjamin, 1991; Cherniss, 1980, 1995; Farber, 1983; Maslach, 1982; Pines & Aronson, 1981; Schaufeli, 1990; Schaufeli, Maslach, & Marek, 1993; Van Yperen, Buunk, & Schaufeli, 1992). When discussing factors in the development of nursing burnout, Miller, Reesor, McCarrey, and Leikin (1995) found that abuse in the

workplace is one of the most conspicuous hazards endangering the nurses' positive self-perception, which may cause feelings of powerlessness, a risk factor for burnout. Freyne and Wrigley (1996) found that staff almost continually have to deal with at least minor forms of aggression from elderly residents. Lanza, the composer of the Patient Assault Questionnaire (1988) concluded in her (1992, 1995) studies that even a small amount of violence in the interpersonal relationship between staff and residents calls forth intense and emotional reactions in the providers of care. Research results in the Netherlands, too, (van Gorp, Schaufeli, & Hopstaken, 1993) were in support of the findings of Lanza. MacPherson et al. (1994) concluded that there was a strong relationship between the residents' aggressive behavior and the staff's psychological disturbance (i.e., staff that are exhibiting symptoms of stress, such as shouting back at residents). Staff dealing with aggressive elderly residents have higher rates of burnout. Because of this they are likely to develop negative feelings toward the residents, isolate them, and prevent them from meeting their basic psychological and social needs for interaction (Beck, Robinson, & Baldwin, 1992).

From the findings stated earlier, it can be concluded that the occurrence of aggressive behavior from residents directed against staff can no longer be denied. At the same time these introductory remarks reveal that staff experience aggression in different ways. Aggressive behavior may cause negative feelings of stress or even burnout.

PERCEIVED SELF-EFFICACY

Perceived self-efficacy (PSE), refers to one's judgment of successfully coping with difficult situations. Bandura (1997) defines perceived self-efficacy as "the belief in one's capacities to organize and execute the courses of action required to produce given attainments" (p. 3). As self-efficacy beliefs are domain specific, someone's self-efficacy belief is very likely to differ depending on the activity to which it is related (Bandura, 1997). So, when construing a definition of PSE the domain and activities should be included.

This study utilized Craven and Froman's (1993) definition of perceived pediatric skill self-efficacy as a point of departure for phrasing a definition of perceived self-efficacy. In the case of the elderly care, perceived self-efficacy refers to the beliefs or judgments of staff about those caring and nursing behaviors, skills and knowledge which are needed to provide safe, independent care for residents of homes for the elderly. It includes knowledge, skills, and tasks staff are commonly asked to perform in the homes for the elderly. This definition assumes that staff

has particular beliefs in using their capabilities in providing care for elderly people. These beliefs influence the thought processes, which in turn mediate the relationship between knowledge and action (Bandura, 1977, 1982). Staff who have strong beliefs of PSE are not afraid of difficult tasks such as unruly or aggressive behavior of clients. Rather, by viewing aggressive behavior as a challenge in the daily routine, negative feelings of stress are reduced (Murphy & Kraft, 1993) and vulnerability for the onset of burnout is lowered (Bandura, 1997; Leiter, 1992).

The PSE theory offers two important elements eliciting an individual's functioning. First, the theory is concerned with future actions (Bandura, 1997; Harvey & McMurray, 1994; Murphy & Kraft, 1993). Second, PSE both influences someone's behavior and can be influenced. It influences the kinds of actions that will be undertaken and the individual's persistence in attempting to successfully finish the action (Bandura, 1982, 1997; Lucas, Wanberg, & Zytowski, 1997; Maddux & Lewis, 1995). And finally, PSE decides the level at which the action will be performed. The consequence is that weak self-efficacy beliefs can be strengthened, and the exact domain in which the intervention should take place can be established as well. After positively influencing someone's PSE, the resulting positive self-evaluations will be a blockade in the onset of burnout (Jackson, Schwab, & Schuler, 1986; Jayaratne & Chess, 1986; Vrugt, 1995).

In this study, experienced physical and psychological aggression as well as perceived self-efficacy are measured in order to find out whether and to what degree they are responsible for the explanation of burnout among staff caring for the elderly. We assumed that staff experiencing aggressive behavior would have low scores on personal accomplishment and exhibit high levels of burnout. Furthermore, sex, age, the amount of weekly working hours, and the number of years of experience were examined in relation to burnout in staff caring for the elderly.

METHOD

Participants

From the Blanken and Mertens (1998) annual care for the elderly book, 22 homes for the elderly in the southern region of the Netherlands were selected randomly and asked to participate in our study. Questionnaires were sent to 1,172 caregivers for the elderly. After having delivered the questionnaires, 551 (47%) forms were returned four weeks later. The percentage of women respondents was 93.65 ($N = 516$). The average age of staff was 33.37 (SD = 9.29), with a range of 17–60 years

of age. To enhance the survey response rate we followed some of the suggestions as described by Green and Hutchinson (1996): there were no postal charges, we had precontact with the management of each home of the elderly that participated in our study, the questionnaires were personally handed over to the managers, who could contact us if they needed additional information, and finally, we used brief questionnaires.

Instruments

Burnout

In order to measure burnout among staff the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981) was used. In the Netherlands the MBI has been normed for nurses (Schaufeli & Van Dierendonck, 1995). In this study, two modifications were made. First, the word "patient(s)" was replaced by "resident(s)," and second, item 16 "working with patients cheers me up" was altered to "when working with residents is finished, I look back on it with satisfaction."

The MBI questionnaire consists of 20 items divided into three subscales: emotional exhaustion (EE) has eight items, depersonalization (D) has five items, and personal accomplishment (PA) has seven items. The items are scored on a seven-point Likert scale, from 1 (never) to 7 (daily). The scores of each scale are added up. High scores on the first two subscales indicate greater degrees of EE and D, and a low score on the last subscale indicates a lower degree of PA. The validity (Cronbach's Alpha) of the three subscales were .86 (EE), .52 (D), and .74 (PA).

Perceived Self-Efficacy

No satisfactory instrument was found to measure PSE among staff caring for elderly residents. A validated questionnaire from the educational domain (Emmer & Hickman, 1991), translated into Dutch by Brouwers and Tomic (1998), was adapted for this study. The Brouwers and Tomic questionnaire was originally developed to assess the interaction between a teacher and a student. Our PSE questionnaire differed from the Brouwers and Tomic questionnaire because we substituted the word "aggressive behavior" for "disruptive behavior," and "residents" for "pupils." Furthermore, as the tasks of staff caring for the elderly are different from teachers' tasks, we adapted our questionnaire by focusing on tasks in which staff could experience their competence in the care for the residents. The specific task-information needed for our questionnaire has been derived from various studies (Alexander & Ritchie,

1990; Beck, Robinson, & Baldwin, 1992; Benjamin, 1991; Cooper & Mendonca, 1989; Schneider, 1989, 1990; Whittington & Wykes, 1996).

Our PSE questionnaire on coping with residents' aggressive behavior consists of 15 items scored on a 6-point Likert scale ranging from 0 (strongly disagree) to 5 (strongly agree). An example of one item from the list is: "I can convince residents that their behavior does not unbalance me." The scores were added up, with a maximum of 75 points and a minimum of 0. High scores indicate strong beliefs in one's own PSE. In this study the reliability of the PSE questionnaire was .83.

Experienced Aggressive Behavior

When composing our questionnaire on the elderly residents' aggressive behavior we followed the view of Schneider (1990) by using items referring to specific acts of aggression. Aggression is defined as any mental or physical action or procedure violating the positive relationship between staff and recipient of care (Hanks, 1976). In this study two categories of aggression, physical and psychological, are measured. Subscale 1 consists of six items, measuring both physical and psychological aggressive behavior in *general* terms on a 6-point Likert scale. An example is "When working with the residents, they never exhibit aggressive behaviors."

Subscale 2 measures *specific* acts of both physical and psychological aggressive behavior using 26 items on a 7-point Likert scale (Bureau voor Toegepaste Sociale Gerontologie [BTSG], 1997; Schneider, 1990; Snowdon, Miller, & Vaughan, 1996). These specific acts of physical and psychological aggressive behavior were divided into four categories: passive resistance (physical or psychological aggression, for example: not opening one's mouth while being fed), active resistance and claiming behavior (physical and psychological aggression, for example: spitting out food), verbal aggression (psychological aggression, for example: shouting), and finally physical aggression (example: improper touching).

The questionnaires were pilot-tested among five caregivers for the elderly to determine clarity of items and length of time needed to complete them. Modifications were not necessary.

Procedure

We carefully explained the purpose of our study to staff of the homes for the elderly, assuring that the names of the participating homes would never be known because the completed questionnaires would be collected by us in unmarked and sealed boxes. Moreover, we also stressed the fact that the caregivers for the elderly could anonymously complete

the questionnaires. The unmarked sealed box and the questionnaires were sent to each participating home. The ward managers were asked to hand out the questionnaires to staff who provided direct care or who were in direct contact with the residents. In order to further the response rate, repeat letters were delivered at the homes for the elderly two weeks after the questionnaires had been distributed.

RESULTS

The average number of years staff had been employed in the care for the elderly was 10.18 (SD = 6.52). The mean number of working hours per week was 26.34 (SD = 9.26). Staff's vocational training had been at a lower, a medium, and an advanced level ($n = 38$ [6.89%], $n = 412$ [74.77%], and $n = 101$ [18.33%] respectively). A survey of the correlation coefficients among the different scales and the variables of age, the number of weekly working hours, and the number of years working in elder care is presented in Table 1. Moreover, the mean scores and the standard deviations of the variables and the scales are included in this table. The amount of weekly working hours decreases when caregivers grow older. It is also clear from Table 1 that the older the staff is, the more years they have been working in elder care. When growing older, caregivers experience less aggressive behavior. It appears that growing older promotes staff's efficacy. It also becomes clear that the more years staff have been working, the fewer working hours per week they are occupied in their job. The more working hours per week, the more often physical aggression is experienced combined with emotional exhaustion and a weak judgment of perceived self-efficacy. More experienced physical aggression leads to an increase of emotional exhaustion and depersonalization. These relationships also exist in the case of experienced psychological aggression. Perceived self-efficacy is weaker when physical aggression is experienced. Strong feelings of self-efficacy go along with high levels of personal accomplishment. Emotional exhaustion is related to depersonalization. Furthermore, both emotional exhaustion and depersonalization are negatively related to staff's personal accomplishment.

In Table 2 hierarchical regression analysis was used to find out to what degree experienced aggression of residents and the PSE to cope with aggressive behavior can explain the amount of burnout, while controlling for age, number of years having worked in homes for the elderly, and the number of weekly working hours. For every burnout dimension as a dependent variable the control variables were put to the regression equation first (step 1), followed by the hypothetical variables, that is, physical aggression and psychological aggression, and PSE (step 2).

TABLE 1. Survey of Mean Scores ($N = 551$), Standard Deviations, and Correlation Coefficients Among Variables

Variable	Mean score	SD	1	2	3	4	5	6	7	8	9
1. Age	33.37	9.29	—								
2. Weekly working hours	26.34	9.26	−.31**	—							
3. Years experience	10.18	6.52	.55**	−.21**	—						
4. Physical aggression	3.44	4.22	−.10*	.14**	−.07	—					
5. Psychological aggression	4.90	3.76	−.16**	.03	−.04	.33**	—				
6. Perceived self-efficacy	38.14	7.36	.17**	−.16**	.12**	−.32**	−.01	—			
7. Emotional exhaustion	10.43	6.58	−.04	.12**	.00	.25**	.33**	−.08	—		
8. Depersonalisation	3.72	3.04	−.01	.03	.00	.15**	.36**	−.04	.47**	—	
9. Personal accomplishment	30.32	5.35	.08	.07	.05	−.04	.04	.27**	−.10*	−.12**	—

*$p < .05$; **$p < .01$.

TABLE 2. Results of Hierarchical Regression Analysis for the Predicting Variables of Burnout Dimensions

	Emotional exhaustion		Depersonalization		Personal accomplishment	
Predicting variables	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2
Step 1		.02*		.00		.02*
Sex	−.05		.01		.02	
Age	.06		.06		.06	
Weekly working hours	.12**		.02		.13**	
Years experience	.02		.00		.01	
Step 2		.13**		.14**		.07**
Physical aggression	.13**		.03		.04	
Psychological aggression	.30**		.37**		−.05	
Perceived self-efficacy	−.02		−.03		.28**	
F-total for the equation		13.16**		12.50**		7.18**

* $p < .05$; ** $p < .01$.

Note: Beta is the standardized regression coefficient for the total regression equation with all the predicting variables.

The results show that emotional exhaustion is related to the number of weekly working hours, and to physical and psychological aggression. Table 2 shows that the effect of physical aggression on emotional exhaustion is not so strong as the effect of psychological aggression. Depersonalization is related only to psychological aggression. And last, personal accomplishment has an effect on PSE in coping with aggressive behavior and the number of weekly working hours. Neither sex nor age has a significant effect on the dimensions of burnout.

DISCUSSION

This study investigated the effects of physical and psychological aggression of elderly residents and the role of perceived self-efficacy on the burnout dimensions of staff working in homes for the elderly. Moreover, the effects of sex, age, the number of weekly working hours, the number of years having worked in elder care was examined. The number of weekly working hours and physical and psychological aggression were significantly related to emotional exhaustion. The effect of physical aggression is smaller than the effect of psychological aggression. Only psychological aggression has an effect on depersonalization. The explanation may be found in the visibility of physical aggression,

making it possible for staff to more easily avoid an actual impact on feelings of well being. Both the number of weekly working hours and PSE have positive effects on staff's personal accomplishment. Physical aggression, psychological aggression, and PSE accounted for 13% of the caregivers' consistent emotional exhaustion, 14% of their feelings of depersonalization, and 7% of their diminished personal accomplishment.

A closer look at the results reveal that although most staff said they did not feel competent to cope with aggressive behavior (PSE), they at the same time indicated (on the personal accomplishment scale) they could cope with all kinds of difficult situations. MacPherson et al. (1994) came across the same contradictory results. In their study, a ward having high rates of long-term sickness proved to have the lowest rates of psychological disturbance.

In the current study, relationships are found between residents' aggressive behavior and the burnout dimensions of emotional exhaustion and depersonalization. Perceived self-efficacy on the other hand only has an effect on personal accomplishment. This effect is in accordance with Bandura's (1997) theory on self-efficacy and is supported by Leiter (1992), Vrugt (1995), and Brouwers and Tomic (1998).

The hypothesized effects of PSE on the other two dimensions of burnout could not be demonstrated. These findings are not in concurrence with Bandura's (1982, 1997) theory on perceived self-efficacy. This theory posits that low scores on burnout are linked to strong PSE beliefs that buffer against burnout. Further research may bring more clarity to this matter.

It may be concluded from this study that staff working in homes for the elderly score relatively low on burnout. This may be due to the level of training these workers receive. Van Veldhoven and Broersen (1999) found that a low level of training correlates with low scores on emotional exhaustion. Another reason might be found in the effects of social desirability while filling out the MBI questionnaire and the questionnaires on the residents' aggressive behavior. It is not a very pleasant thought to inform others about lack of competence in coping with residents' aggressive behavior. Lanza (1995) and Beck et al. (1992) posit that filling out specific items may evoke feelings of failure which are not easily communicated to others. Aggression towards caregivers appears to be a taboo subject (Lanza, 1992). Some caregivers mention having experienced various acts of aggressive behavior, whereas other caregivers working in the same ward deny the existence of aggression. Here too, caregivers wanting to provide the socially desirable answer may be the explanation.

However, it also may be possible that residents react in an aggressive way to staff's unprofessional or provocative behavior (Schneider, 1990; Whittington & Wykes, 1996). Another plausible explanation is given by Snowdon, Miller, and Vaughan (1996) who posit that there are strong differences in staff's outlook on what aggressive behavior is. Beck et al. (1992) say that aggressive behavior is not an uncommon feature in the care of the elderly, especially when they are psychologically disturbed.

In order to get data to investigate problems of importance, questionnaires are highly valued and often used. Cronbach's Alpha of our questionnaires was, except for the depersonalization scale, over .70 and meets the criterion suggested by Nunnally (1978). The reliability is consistent with previous studies on burnout among staff working in the health care. The depersonalization scale's reliability, however, is low in comparable studies. Betgem and Scheppink (1993) and van Gorp et al. (1993) report a reliability of only .46. It is a matter of great importance to try to improve the depersonalization scale.

In a case like this, longitudinal research is advisable in order to find out whether measures to strengthen PSE to cope with aggressive behavior have been successful. In doing so, it might be important to include a qualitative component to document observations similar to the ones developed by Tomic (1988, 1989) and Nijman, Muris, Merckelbach, and associates (1999). Another suggestion for future research is that a distinction should be made between psycho-geriatric and nonpsycho-geriatric research.

Furthermore, it is advisable to introduce a standardized reporting instrument developed by the caregivers themselves. In this way a caregiver experiencing aggressive behavior would not feel isolated. Together staff can try to find strategies for coping with the reported aggression displayed by residents. At the same time preventive strategies can be developed and discussed in order to anticipate aggressive behavior.

By incorporating the skills necessary for coping with aggressive behavior into the training for caregivers, the likelihood of staff's successful start in the care of elderly residents increases. Learning how to cope with aggressive behavior during a period of training will certainly strengthen the caregivers PSE. A professional with strong PSE beliefs who is confronted with aggressive resident behavior will be able to prevent disastrous emotional damages, because he or she knows that aggressive behavior is not uncommon and because he or she is able to use adequate coping skills.

As the average scores on PSE in this study are rather weak (38.14), it seems worthwhile to strengthen PSE beliefs of the caregivers of the elderly, for instance by attempting to have staff experience successes in

work (Bandura, 1997; Brouwers & Tomic, 1998) which will mostly be accompanied by positive feelings (Miller et al., 1995).

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